

Populations and Communities ▪ *Performance Assessment*

How Many Shrimp?

Problem

How can you estimate the size of a brine shrimp population?

Suggested Materials

jar containing brine shrimp population

magnifier

medicine cup, 30-mL

eyedropper

large and small beakers

petri dish

Devise a Plan

1. In this chapter, you learned about four methods that ecologists use to determine the size of a population. Examine your brine shrimp population with a magnifier. Decide which method will work best to determine the size of the population.
2. Study the list of materials above. Think about how you could use some or all of them to estimate the total number of brine shrimp in the jar. Create a plan.
3. Carry out your plan.

Analyze and Conclude

Answer the following questions on a separate sheet of paper.

1. Which of the four methods did you use to determine the size of the brine shrimp population?
2. What steps did you go through? Show the calculations you made.
3. About how many brine shrimp are in the total population?
4. If you repeated your plan two more times, would you get the same answer each time? Why, or why not?
5. Guppies are freshwater organisms. What would happen if you put your shrimp population in a guppy aquarium? Why? What would happen if you put guppies in the jar with the shrimp? Why?